

TN517.33(a). Definition of Conservation Practices.

**WILDLIFE HABITAT INCENTIVES PROGRAM CONSERVATION PRACTICES
TENNESSEE**

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**WILDLIFE HABITAT INCENTIVES PROGRAM WILDLIFE CONSERVATION
PRACTICE SHEETS - TENNESSEE**

WHIP 1 - FIELD BORDER

FOTG Practice Code 386

A. PURPOSE

The purpose of this practice is to establish a vegetative cover of (1) native grasses/forbs; or (2) shrubs that will provide wildlife food and cover benefits.

B. PROGRAM POLICY

Apply this practice to establish permanent wildlife habitat on field edges of cropland or pasture/hay land consisting of primarily introduced grasses.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved wildlife Habitat Development Plan (WHDP).

Eligible Components

Minerals

Eligible Seed

Seedbed Preparation

Seeding

Tame Grass Eradication (herbicide and application cost)

Shrub Seedlings

Temporary Cover

Fencing (Permanent Fencing for Livestock Exclusion Only)

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock is available; (b) needed because normal planting period for the species has passed and erosion problems may occur; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover

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(440-V-CPM, Amend. TN11, Jan. 2004)

immediately; (d) on sites subject to erosion where natural regeneration will be the established cover (B-slopes, areas subject to scour erosion).

E. REQUIREMENTS

The following are requirements for this practice:

1. The seeded area shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
2. Limit cost share to the minimum minerals and seed necessary to establish adequate cover to provide wildlife habitat needs.
3. Chemicals used in performing the practice must be:
 - a. Federally, state, and locally registered.
 - b. Applied according to authorized registered uses, directions on the label, and other federal or state policies and requirements.

F. PLANTING TIMESPAN

Planting or sowing after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed as scheduled in the Wildlife Habitat Development Plan, unless the producer can provide acceptable documentation that seed stock is not available.

G. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

H. PRACTICE MAINTENANCE

The practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

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I. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

J. SPECIFICATIONS

Planned Widths Field Borders shall be a minimum of 20 feet and a maximum of 50 feet.

Approved Cover Natural Regeneration is acceptable on B-slopes or flatter areas (slopes of 5 percent or less). Natural regeneration is acceptable on C-slopes (slopes of 5-12 percent), if sufficient ground cover is present to minimize soil erosion and other off-site environmental impacts. With natural regeneration, cost sharing shall only be available for tame grass eradication, temporary cover, or legume interseeding.

Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.

Requirements Temporary cover, when required, is authorized in accordance with subparagraph D. A current soil test is strongly recommended for non-woody plantings. In the absence of a soil test, apply fertilizer materials for temporary cover, cool season plantings, and warm season plantings at the rate of 30 pounds N, 60 pounds P, and 60 pounds K per acre, and 2 tons of lime. Shrub seedlings (seedlings) do not require lime or fertilizer. Cost sharing shall be based on either a current soil test or the minimum recommendations listed above.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Natural Regeneration	Temporary Cover, if needed	
Natural Regeneration with Legume Interseeding Kobe/Korean Lespedeza	15.0 lbs.	Apr. 15 – June 15

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
<u>Tall Grass Mixture (Deer/Turkey)</u>		
Big Bluestem	1.0 lb. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	1.0 lb. (PLS <u>1</u> /)	
Little Bluestem	1.0 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Switchgrass	0.5 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		
<u>Short Grass Mixture (Quail/Rabbit)</u>		
Little Bluestem	3.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	0.5 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		
<u>Broadcast Planting Mixture</u>		
Switchgrass	8.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
(Cave-in-Rock, Blackwell)		
Kobe/Korean Lespedeza	5.0 lbs.	
<u>Cool Season Legume Mixture</u>		
Ladino Clover	4.0 lbs.	Feb. 20 – Apr. 1
Red Clover	5.0 lbs.	Aug. 15 – Oct. 1
Winter Wheat (temporary cover)	25.0 lbs.	
Shrub Establishment: Plantings may consist of single species or mixtures of species.		
Shrub Lespedeza	4,900 plants (3x3 spacing)	Nov. 1 – Apr. 1
(VA-70, Amquail, Thunbergii)	12.0 lbs.	March 1 – June 1
Spicebush	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Indigobush	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Wild Plum	680 plants (8x8 spacing)	Nov. 1 – Apr. 1

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Chickasaw Plum	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Washington Hawthorne	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
American Beautyberry	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Flowering Dogwood	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Crabapple	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Sawtooth Oak	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Temporary Cover – Summer		
Millet, White Proso	20.0 lbs.	May 1 – July 1
Millet, Foxtail	20.0 lbs.	May 1 – July 1
Buckwheat	30.0 lbs.	May 1 – Aug. 1
Temporary Cover – Winter		
Crimson Clover	20.0 lbs.	Aug. 1 – Oct. 1
Winter Wheat	1.5 – 2 bushels	Sept. 1 – Oct. 20
Cereal Rye	1.5 – 2 bushels	Sept. 1 – Oct. 20
Wheat and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20
Rye and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20

1/ PLS = Pure Live Seed

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(440-V-CPM, Amend. TN11, Jan. 2004)

WHIP 2 - FILTER STRIP**FOTG Practice Code 393****A. PURPOSE**

The purpose of this practice is to benefit aquatic wildlife species by establishing a vegetative cover of grasses/forbs that will filter sediment, nutrients, or other potential contaminants and provide food and cover for terrestrial wildlife.

B. PROGRAM POLICY

Apply this practice to cropland and pasture land immediately adjacent and parallel to:

1. Streams having perennial flow.
2. Seasonal streams, excluding gullies and sod waterways.
3. Sinkholes, karst areas, and other ground water recharge areas.
4. Wetlands permanently or semi-permanently inundated with surface water.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.
- Meet the following conditions:

For crop and pasture fields where a buffer area (woods or grassland) already exists between the water body and the cropland/pasture, the following applies:

- Where existing buffer is not adequate for obtaining the wildlife or aquatic resource objectives of the Wildlife Habitat Development Plan, an additional buffer may be established up to a total width of 120 feet.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP).

Eligible Components

Minerals

Eligible Seed

Seedbed Preparation

Seeding

Tame Grass Eradication (Herbicide and Application Costs)

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Temporary Cover

Fencing (Permanent Fencing Needed to Exclude Livestock)

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock is available; (b) needed because normal planting period for the species has passed; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover immediately; (d) needed on a 0-2 percent slope soils when natural regeneration is planned.

E. REQUIREMENTS

The following are requirements for this practice.

1. Filter strips shall be a minimum of 20 feet, up to a maximum of 120 feet.
2. The seeded area shall not be grazed by domestic livestock for the life of the Long-Term Agreement. Native warm season grass stands may be harvested once per year, beginning with the third growing season. Native warm season grass stands may only be harvested between July 1 and August 15.
3. Limit cost share to the minimum minerals and seed necessary to establish adequate cover to provide wildlife habitat needs.
4. Practice shall reduce nutrients, sediment, organic matter, pesticides, and other pollutants that are being delivered to receiving waters.
5. Chemicals used in performing the practice must be:
 - a. Federally, state, and locally registered.
 - b. Applied according to authorized registered uses, directions on the label, and other federal or state policies and requirements.

F. PLANTING TIMESPAN

Planting or sowing after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed as scheduled in the Wildlife Habitat Development Plan, unless the producer can provide acceptable documentation that seed stock is not available.

G. ENVIRONMENTAL CONCERNS

Consider other resources and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

H. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife and water quality benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

I. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

J. SPECIFICATIONS

Approved Cover Natural regeneration is an acceptable cover on soils with 0-2 percent slopes. With natural regeneration, cost sharing shall only be available for tame grass eradication, temporary cover, or legume interseeding. Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.

Requirements Temporary cover, when required, is authorized in accordance with subparagraph D. A current soil test is strongly recommended. In the absence of a soil test, apply fertilizer materials for temporary cover, cool season plantings, and warm season plantings at the rate of 30 pounds N, 60 pounds P, and 60 pounds K per acre, and 2 tons of lime. Cost sharing shall be based on either a current soil test or the minimum recommendation listed above.

Seedbed For conventionally planted materials a firm seedbed preparation is recommended. It should be prepared by plowing and disking (or harrowing) and allowed to settle.

Herbicides Apply herbicides in accordance with the label for tame grass eradication or when the no-till method of planting is used.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Natural Regeneration	Temporary Cover, if needed	
Natural Regeneration with Legume Interseeding		
Kobe/Korean Lespedeza	15.0 lbs.	Apr. 15 – June 15

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
<u>Tall Grass Mixture (Deer/Turkey)</u>		
Big Bluestem	1.0 lb. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	1.0 lb. (PLS <u>1</u> /)	
Little Bluestem	1.0 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Switchgrass	0.5 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of Illinois Bundleflower Partridge Pea	1.0 lb.	
<u>Short Grass Mixture (Quail/Rabbit)</u>		
Little Bluestem	3.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	0.5 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of Illinois Bundleflower Partridge Pea	1.0 lb.	
<u>Broadcast Planting Mixture</u>		
Switchgrass (Cave-in-Rock, Blackwell)	8.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Kobe/Korean Lespedeza	5.0 lbs.	
<u>Temporary Cover – Summer</u>		
Millet, White Proso	20.0 lbs.	May 1 – July 1
Millet, Foxtail	20.0 lbs.	May 1 – July 1
Buckwheat	30.0 lbs.	May 1 – Aug. 1

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Temporary Cover – Winter		
Crimson Clover	20.0 lbs.	Aug. 1 – Oct. 1
Winter wheat	1.5 – 2 bushels	Sept. 1 – Oct. 20
Cereal Rye	1.5 – 2 bushels	Sept. 1 – Oct. 20
Wheat and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20
Rye and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20

1/ PLS = Pure Live Seed

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WHIP 3 - PERENNIAL FOOD PLOT

FOTG Practice Code 645

A. PURPOSE

The purpose of this practice is to establish a vegetative cover of native forbs or legumes that will provide wildlife food benefits.

B. PROGRAM POLICY

Apply this practice to establish permanent wildlife habitat on cropland, pasture/hay land, woodland openings, or idle grassy areas.

C. ELIGIBILITY

To be eligible for cost/share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP).

Eligible Components

Minerals

Eligible Seed

Seedbed Preparation

Seeding

Tame Grass Eradication (Herbicide and Application Cost)

Shrub Seedlings

Fencing (Permanent Fencing for Livestock Exclusion Only)

E. REQUIREMENTS

The following are requirements for this practice.

1. Each perennial food plot shall not be less than 1/4 acre nor more than 1.0 acre in size.
2. The maximum acreage allowed for perennial food plots in the Wildlife Habitat Development Plan shall not exceed 10 percent of the open land acres in the treatment unit (1 acre/10 acres of open land acres evaluated).

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(440-V-CPM, Amend. TN11, Jan. 2004)

3. The seeded area shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
4. Limit cost share to the minimum minerals and seed necessary to establish adequate food to provide wildlife needs.
5. Chemicals used in performing the practice must be:
 - a. Federally, state, and locally registered.
 - b. Applied according to authorized registered uses, directions on the label, and other federal or state policies and requirements.

F. PLANTING TIMESPAN

Planting or sowing after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed as scheduled in the wildlife Habitat Development Plan unless the producer can provide acceptable documentation that seed stock is not available.

G. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

H. PRACTICE MAINTENANCE

The practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

I. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

J. SPECIFICATIONS

Approved Cover	Substitutions of plant species may be allowed subject to prior approval by the WHIP program leader or state biologist.
Requirements	A current soil test is strongly recommended. In the absence of a soil test, apply fertilizer materials for temporary cover, cool season plantings, and warm season plantings at the rate of 0 pounds N, 60 pounds P, and 60 pounds K per acre, and 2 tons of lime. Cost sharing

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shall be based on either a current soil test or the minimum recommendation listed above.

Seedbed For conventionally planted materials, a firm seedbed preparation is recommended. It should be prepared by plowing and disking (or harrowing) and allowed to settle.

Herbicides Apply herbicides in accordance with the label for tame grass eradication or when the no-till method of planting is used.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Reseeding Soybean	20.0 lbs.	Apr. 15 – June 15
Kobe Lespedeza	20.0 lbs.	Apr. 15 – June 15
Korean Lespedeza	20.0 lbs.	Apr. 15 – June 15
Partridge Pea	12.0 lbs.	Apr. 1 – June 1
Dry Site Mixture		
Red Clover	7.0 lbs.	Feb. 20 – Apr. 1
Chicory	2.0 lbs.	Aug. 15 – Oct. 1
Crimson Clover (Temporary Cover)	5.0 lbs.	
Winter Wheat (Temporary Cover)	25.0 lbs.	
Moist Site Mixture		
Ladino Clover	4.0 lbs.	Feb. 20 – Apr. 1
Alsike Clover	5.0 lbs.	Aug. 15 – Apr. 1
Berseem Clover (Temporary Cover)	5.0 lbs.	
Winter Wheat (Temporary Cover)	25.0 lbs.	

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(440-V-CPM, Amend. TN11, Jan. 2004)

WHIP 4 - PERMANENT WILDLIFE PLANTING

FOTG Practice Code 645

A. PURPOSE

The purpose of this practice is to establish a vegetative cover of native grasses/forbs that will provide wildlife food and cover benefits.

B. PROGRAM POLICY

Apply this practice to establish permanent wildlife habitat on cropland, pasture/hay land consisting of primarily introduced grasses, or permanent wildlife openings within woodlands.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP).

Eligible Components

Minerals

Eligible Seed

Seedbed Preparation

Seeding

Tame Grass Eradication (Herbicide and Application Costs)

Temporary Cover

Fencing (Permanent Fencing Needed to Exclude Livestock)

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock is available; (b) needed because normal planting period for the species has passed and erosion problems may occur; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover immediately.

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E. REQUIREMENTS

The following are requirements for this practice.

1. The seeded area shall not be grazed by domestic livestock for the life of the Long-Term Agreement. Native warm season grass stands may be harvested once per year, beginning with the third growing season. Native warm season grass stands may only be harvested between July 1 and August 15.
2. Limit cost share to the minimum minerals and seed necessary to establish adequate cover to provide wildlife habitat needs.
3. Chemicals used in performing the practice must be:
 - a. Federally, state, and locally registered.
 - b. Applied according to authorized registered uses, directions, on the label, and other federal or state policies and requirements.

F. PLANTING TIMESPAN

Planting or sowing after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed as scheduled in the Wildlife Habitat Development Plan, unless the producer can provide acceptable documentation that seed stock is not available.

G. ENVIRONMENTAL CONCERNS

Consider other resources and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

H. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice, with the exception of prescribed burns. Prescribed burns may be cost shared after establishment of this practice to rejuvenate native warm season grass/forb mixtures (see WHIP Prescribed Burning practice for requirements), and will not be considered a maintenance practice.

Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or

2. Cover fails to provide the desired wildlife and water quality benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

I. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

J. SPECIFICATIONS

Approved Cover Natural Regeneration is acceptable on B-slopes or flatter areas (slopes of 5 percent or less). Natural regeneration is acceptable on C-slopes (slopes of 5-12 percent), if sufficient ground cover is present to minimize soil erosion and other off-site environmental impacts. With natural regeneration, cost sharing shall only be available for tame grass eradication, temporary cover, or legume interseeding.

Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.

Requirements Temporary cover, when required, is authorized in accordance with subparagraph D. A current soil test is strongly recommended. In the absence of a soil test, apply fertilizer materials for temporary cover and warm season grasses at the rate of 30 pounds N, 60 pounds P, and 60 pounds K per acre, and 2 tons of lime. Cost sharing shall be based on either a current soil test or the minimum recommended amount shown above.

Seedbed For conventionally planted materials, a firm seedbed preparation is recommended. It should be prepared by plowing and disking (or harrowing) and allowed to settle.

Herbicides Apply herbicides in accordance with the label for tame grass eradication or when the no-till method of planting is used.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Natural Regeneration	Temporary Cover, if needed	
Natural Regeneration with Legume Interseeding		
Kobe/Korean Lespedeza	15.0 lbs.	Apr. 15 – June 15

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
<u>Tall Grass Mixture (Deer/Turkey)</u>		
Big Bluestem	1.0 lb. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	1.0 lb. (PLS <u>1</u> /)	
Little Bluestem	1.0 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Switchgrass	0.5 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		
<u>Short Grass Mixture (Quail/Rabbit)</u>		
Little Bluestem	3.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	0.5 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		
<u>Broadcast Planting Mixture</u>		
Switchgrass	8.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
(Cave-in-Rock, Blackwell)		
Kobe/Korean Lespedeza	5.0 lbs.	
<u>Temporary Cover – Summer</u>		
Millet, White Proso	20.0 lbs.	May 1 – July 1
Millet, Foxtail	20.0 lbs.	May 1 – July 1
Buckwheat	30.0 lbs.	May 1 – Aug. 1
<u>Temporary Cover – Winter</u>		
Crimson Clover	20.0 lbs.	Aug. 1 – Oct. 1
Winter Wheat	1.5 – 2 bushels	Sept. 1 – Oct. 20
Cereal Rye	1.5 – 2 bushels	Sept. 1 – Oct. 20
Wheat and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20
Rye and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20

1/ PLS = Pure Live Seed

TN517.D.33-1(18)

(440-V-CPM, Amend. TN11, Jan. 2004)

WHIP 5 - HEDGEROW/WILDLIFE CORRIDOR

FOTG Practice Code 645

A. PURPOSE

The purpose of this practice is to establish a vegetative cover (living fence) of shrubs or trees in, around or across fields that will provide wildlife food and cover benefits and serve as a wildlife corridor to facilitate animal movements.

B. PROGRAM POLICY

Apply this practice to establish permanent wildlife habitat on field edges of cropland or grassland, or to connect areas of good cover across areas of poor cover.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.
- Include woody vegetation determined suitable to meet wildlife needs.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP).

Eligible Components

Trees

Shrubs

Planting Costs

Tame Grass Eradication (Herbicide and Application Costs)

Temporary Cover

Fencing (Permanent Fencing for Livestock Exclusion ONLY)

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock is available; (b) needed because normal planting period for the species has passed and erosion problems may occur; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover immediately.

TN517.33(a)

E. REQUIREMENTS

The following are requirements for this practice.

1. Plantings must be protected from destructive fire and shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
2. Limit cost share to the minimum minerals and seed necessary to establish adequate cover to provide wildlife habitat needs.
3. Chemicals used in performing the practice must be:
 - a. Federally, state, and locally registered.
 - b. Applied according to authorized registered uses, directions on the label, and other federal or state policies and requirements.

F. PLANTING TIMESPAN

Planting or sowing after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed as scheduled in the Wildlife Habitat Development Plan unless the producer can provide acceptable documentation that seed stock is not available.

G. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

H. PRACTICE MAINTENANCE

The practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

I. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

J. SPECIFICATIONS

Planned Width	Hedgerows/wildlife corridors shall be a minimum width of 20 feet and a maximum of 50 feet.
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TN517.D.33-1(20)

Approved Cover Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader. Plantings may consist of a single species or a mixture of species.

Evergreen trees (Shortleaf pine, White pine, Virginia pine, or Eastern redcedar) may be established for winter cover (thermal protection) within the following limits:

Evergreens may be planted in blocks (thickets) up to four-row width strips, not to exceed one acre in size per increment of ten contract acres.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Spicebush	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Indigobush	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Wild Plum	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Chickasaw Plum	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
American Beautyberry	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Chokeberry	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Flowering Dogwood	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Sawtooth Oak	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Crabapple	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Washington Hawthorne	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Serviceberry	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Staghorn Sumac	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Persimmon	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Pin Oak	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Cherrybark Oak	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Nuttall Oak	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Northern Red Oak	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
*Shrub Lespedeza	4,800 plants (3x3 spacing)	Nov. 1 – Apr. 1
*Shrub Lespedeza (*VA-70, Amquail, Thunbergii)	12.0 lbs.	March 1 – June 1
Eastern Redcedar	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Virginia Pine	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
White Pine	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
Shortleaf Pine	302 plants (12x12 spacing)	Nov. 1 – Apr. 1
**Apple Tree Bare Root	109 plants (20x20 spacing)	Nov. 1 – Apr. 1
**One-fourth-acre block or less.		

Temporary Cover – Summer

Millet, White Proso	20.0 lbs.	May 1 – July 1
Millet, Foxtail	20.0 lbs.	May 1 – July 1
Buckwheat	30.0 lbs.	May 1 – Aug. 1

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Temporary Cover – Winter		
Crimson Clover	20.0 lbs.	Aug. 1 – Oct. 1
Winter Wheat	1.5 – 2 bushels	Sept. 1 – Oct. 20
Cereal Rye	1.5 – 2 bushels	Sept. 1 – Oct. 20
Wheat and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20
Rye and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20

TN517.D.33-1(22)

(440-V-CPM, Amend. TN11, Jan. 2004)

**WHIP 6 - PERMANENT WILDLIFE OPENING
(FOREST OPENING)**

FOTG Practice Code 645

A. PURPOSE

The purpose of this practice is to establish a permanent opening of primarily herbaceous vegetation within woodland areas to provide food and cover benefits for early successional wildlife species.

B. PROGRAM POLICY

Apply this practice to woodlands.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

C. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP).

Eligible Components

Land Clearing
Minerals
Eligible Seed
Seedbed Preparation
Seeding
Shrub Seedlings

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock is available; (b) needed because normal planting period for the species has passed and erosion problems may occur; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover immediately; (d) on sites subject to erosion where natural regeneration will be the established cover (B-slopes, areas subject to scour erosion).

D. REQUIREMENTS

The following are requirements for this practice.

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1. The seeded area shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
2. Limit cost share to the minimum minerals and seed necessary to establish adequate cover to provide wildlife habitat needs.
3. Chemicals used in performing the practice must be:
 - a. Federally, state, and locally registered.
 - b. Applied according to authorized registered uses, directions on the label, and other federal or state policies and requirements.

E. PLANTING TIMESPAN

Planting or sowing after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed within the next full planting season after the clearing activity, unless the producer can provide acceptable documentation that seed stock is not available.

F. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

G. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the covering during its lifespan; or
2. Cover fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control. Prescribed burns may be cost shared after establishment of this practice to rejuvenate native warm season grass/forb mixtures (see WHIP Prescribed Burning practice for requirements), and will not be considered a maintenance practice.

H. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

I. SPECIFICATIONS

Acreage Limits	Each permanent wildlife opening shall not be less than ¼ acre nor more than 1.0 acre in size. Applicants are limited for cost share to 1.0 acre openings for each full 50 acres of woods within the treatment unit. Applicants may receive cost share for an opening within a woodland treatment unit of less than 50 acres, when the applicant's woodland is part of a larger off-site (>50 acres) woodland.
Site Selection	Permanent wildlife openings are limited to slopes of 8 percent or less and nonwetland (NW) sites. Linear or block openings shall be a minimum of 50 feet wide. Circular openings shall have a minimum diameter of 120 feet.
Approved Cover	Natural regeneration is acceptable only on B-slopes or flatter areas (slopes of 5 percent or less). With natural regeneration, cost sharing shall be available for temporary cover. Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.
Requirements	Temporary cover, when required, is authorized in accordance with subparagraph D. A current soil test is strongly recommended. In the absence of a soil test, apply fertilizer materials for temporary cover and warm season grasses at the rate of 30 pounds N, 60 pounds P, 60 pounds K per acre, and 2 tons of lime. Native warm season grass mixtures <u>do not require fertilizer</u> . Native grasses do not require lime, if the soil pH is 5.5 or above. Apply 1 ton of lime per acre on warm season grass mixtures in the absence of a soils test. Shrub seedlings (and seedlings) do not require lime or fertilizer. Cost sharing shall be based on either a current soil test or the minimum recommendation listed above.
Seedbed	For conventional planting, a firm seedbed is recommended. It should be prepared by plowing and disking (or harrowing) and allowed to settle.
Herbicides	Apply herbicides in accordance with the label for tame grass eradication or when the no-till method of planting is used.

Eligible Seeds
or PlantsSeeding Rates
(per acre)Seeding Dates

Natural Regeneration

Sow Temporary Cover,
if needed

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
<u>Tall Grass Mixture (Deer/Turkey)</u>		
Big Bluestem	1.0 lb. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	1.0 lb. (PLS <u>1</u> /)	
Little Bluestem	1.0 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Switchgrass	0.5 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		
<u>Short Grass Mixture (Quail/Rabbit)</u>		
Little Bluestem	3.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	0.5 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		
<u>Broadcast Planting Mixture</u>		
Switchgrass	8.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
(Cave-in-Rock, Blackwell)		
Kobe/Korean Lespedeza	5.0 lbs.	
<u>Dry Site Mixture</u>		
Red Clover	7.0 lbs.	Feb. 20 – April 1
Chicory	2.0 lbs.	Aug. 15 – Oct. 1
Crimson Clover	5.0 lbs.	
Winter Wheat	25.0 lbs.	
<u>Wet Site Mixture</u>		
Ladino Clover	4.0 lbs.	Feb. 20 – April 1
Alsike Clover	5.0 lbs.	Aug. 15 – Oct. 1
Berseem Clover	5.0 lbs.	
Winter Wheat	25.0 lbs.	
Reseeding Soybean (Quailhaven)	20.0 lbs.	Apr. 15 – June 15
Kobe Lespedeza	20.0 lbs.	Apr. 15 – June 15

TN517.D.33-1(26)

(440-V-CPM, Amend. TN11, Jan. 2004)

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Korean Lespedeza	20.0 lbs.	Apr. 15 – June 15
Partridge Pea	12.0 lbs.	Apr. 1 – June 1
Temporary Cover – Summer		
Millet, White Proso	20.0 lbs.	May 1 – July 1
Millet, Foxtail	20.0 lbs.	May 1 – July 1
Buckwheat	30.0 lbs.	May 1 – Aug. 1
Temporary Cover – Winter		
Crimson Clover	20.0 lbs.	Aug. 1 – Oct. 1
Winter Wheat	1.5 – 2 bushels	Sept. 1 – Oct. 20
Cereal Rye	1.5 – 2 bushels	Sept. 1 – Oct. 20
Wheat and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20
Rye and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 – Oct. 20

Shrub Establishment: Plantings may consist of single species or mixtures of species.

*Shrub Lespedeza	4,900 plants (3x3 spacing)	Nov. 1 – Apr. 1
*Shrub Lespedeza (*one-fourth acre only VA-70, Amquail, Thunbergii)	12.0 lbs.	March 1 – June 1
Indigobush	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Wild Plum	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Chickasaw Plum	680 plants (8x8 spacing)	Nov. 1 – Apr. 1
Spicebush	680 plants (8x8 spacing)	Nov. 1 – Apr. 1

1/ PLS = Pure Live Seed

TN517.33(a)

WHIP 7 – POND

FOTG Practice Code 378

A. PURPOSE

The purpose of this practice is to establish a source of water for wildlife.

B. PROGRAM POLICY

Apply this practice within croplands, pastures, haylands, or woodlands where year-round surface water supplies are insufficient to meet wildlife needs.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Be the only source of surface water available for wildlife within an area equivalent to 160 acres. No year-round existing surface waters shall be present within 1,500 feet of the proposed pond site.
- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan.

Eligible Components

Earthmoving

Minerals

Eligible Seed

Fencing (Permanent Fencing for Livestock Exclusion ONLY)

This practice shall have a cost-share dollar limit not to exceed \$750 provided to an applicant per pond. Cost share shall remain 75 percent of actual cost up to the \$750 limit. Fencing, when needed, shall be considered a separate cost-share item from the pond.

E. REQUIREMENTS

The following are requirements for this practice:

1. The constructed pond shall not be directly accessible to domestic livestock. Surplus water may be delivered to a livestock tank or trough below the dam site at landowner's expense.

TN517.D.33-1(28)

(440-V-CPM, Amend. TN11, Jan. 2004)

2. All disturbed areas including dam, shoreline, and within pool area shall be seeded immediately after construction activities are completed.
3. The seeded area shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
4. Limit cost share to the minimum minerals and seed necessary to provide adequate cover to all disturbed areas.

F. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

G. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded, if either of the following applies:

1. Participant destroys the practice during its lifespan; or
2. The practice fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

H. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

I. SPECIFICATIONS

Requirements	Temporary cover is authorized in accordance with subparagraph D within the pool area of the pond. Fertilizer materials for temporary and permanent cover on the pond dam shall be applied at the rate of 60 pounds of N, 120 pounds of P, 120 pounds of K, and 2 tons of agricultural limestone per acre.
Design	Pond shall be constructed in accordance with pond standard and specification (378) in the FOTG.
Seedbed	Hardpack areas shall be disked at least twice prior to seeding.

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Virginia Wildrye	20.0 lbs.	Aug. 15 – Oct. 15
White Clover	2.0 lbs.	Feb. 20 – Apr. 1
Kobe/Korean Lespedeza	5.0 lbs.	
Switchgrass	12.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Temporary Cover – Summer		
Millet, Browntop	40.0 lbs.	May 1 – July 1
Millet, Foxtail	20.0 lbs.	May 1 – July 1
Sudangrass	30.0 lbs.	Apr. 1 – July 1
Sudan Hybrids	30.0 lbs.	Apr. 1 – July 1
Temporary Cover – Winter		
Winter Wheat	1.5 – 2 bushels	Sept. 1 – Oct. 20
Cereal Rye	1.5 – 2 bushels	Sept. 1 – Oct. 20
Annual Ryegrass	20.0 lbs.	Aug. 15 – Oct. 15

1/ PLS = Pure Live Seed

TN517.D.33-1(30)

(440-V-CPM, Amend. TN11, Jan. 2004)

WHIP 8 - WILDLIFE WATERING FACILITY

FOTG Practice Code 648

A. PURPOSE

The purpose of this practice is to establish a source of drinking water for wildlife.

B. PROGRAM POLICY

Apply this practice within croplands, pastures, haylands, or woodlands where year round surface water supplies are insufficient to meet wildlife needs.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Be the only source of surface water available for wildlife within an area equivalent to 160 acres. No year round existing surface waters shall be present within 1,500 feet of the proposed pond site.
- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan.

Eligible Components:

Earthmoving

Minerals

Eligible Seed

Fencing (Permanent Fencing for Livestock Exclusion ONLY)

This practice shall have a cost-share dollar limit, not to exceed **\$200** provided to an applicant per watering facility. Cost share shall remain 75 percent of actual cost up to the **\$200** limit. Fencing, when needed, shall be considered a separate cost-share item from the watering facility.

E. REQUIREMENTS

The following are requirements for this practice:

1. The constructed wildlife facility shall not be directly accessible to domestic livestock.

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2. All disturbed areas shall be seeded immediately after construction activities are completed.
3. The seeded area shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
4. Limit cost share to the minimum minerals and seed necessary to provide adequate cover to all disturbed areas.

F. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

G. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the practice during its lifespan; or
2. The practice fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

H. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

I. SPECIFICATIONS

Requirements	Temporary cover is authorized in accordance with subparagraph D within the dugout area. Fertilizer materials shall be applied at the rate of 60 pounds of N, 120 pounds of P, and 120 pounds of K per acre.
Design	Wildlife watering facility shall be constructed in accordance with standard and specification 648 in the FOTG (minimum 1,600 square foot surface area, maximum of 4 feet deep, etc.).

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Virginia Wildrye	20.0 lbs. (PLS 1/)	Aug. 15 - Oct. 15
White Clover	2.0 lbs.	Feb. 20 – Apr. 1
Kobe/Korean Lespedeza	5.0 lbs.	
Switchgrass	12.0 lbs. (PLS 1/)	Dec. 1 – July 1
Temporary Cover - Summer		
Millet, Browntop	40.0 lbs.	May 1 - Jul. 1
Millet, Foxtail	20.0 lbs.	May 1 - Jul. 1
Sudangrass	30.0 lbs.	Apr. 1 - Jul. 1
Sudan Hybrids	30.0 lbs.	Apr. 1 - Jul. 1
Temporary Cover - Winter		
Winter Wheat	1.5 - 2 bushels	Sept. 1 - Oct. 20
Cereal Rye	1.5 - 2 bushels	Sept. 1 - Oct. 20
Annual Ryegrass	20.0 lbs.	Aug. 15 - Oct. 15

1/ PLS = Pure Live Seed

TN517.33(a)

WHIP 9 - STRIP DISKING

FOTG Practice Code 645

A. PURPOSE

The purpose of this practice is (1) to reduce grass density and encourage forbs and legumes to regenerate for wildlife food; (2) establish legumes or wildflowers to provide food and cover for wildlife; or (3) establish a firebreak for conducting a prescribed burn.

B. PROGRAM POLICY

Apply this practice to grasslands and idle grassy areas where hard seeded native forbs may respond or where a prescribed burn requires a firebreak and a permanent green firebreak is not appropriate.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan.

Eligible Components:

Disking

Eligible Seed (For Legume Interseeding or Wildflower Plantings)

Seeding (For Legume Interseeding or Wildflower Plantings)

Cost share shall remain 75 percent of average cost for double disking.

Cost share shall be applicable to all strip disking treatments scheduled in the WHIP Agreement under the limitation that strip disking of the same acreage shall not be more frequent than once every three years during the length of the Agreement.

E. REQUIREMENTS

The following are requirements for this practice:

1. The disked area shall not be grazed by domestic livestock for the life of the Long-Term Agreement.
2. Strip disking shall be done outside the primary nesting season of April 15 to August 15.
3. Native warm season grass stands shall not be disked until after the second full growing season with the exception of areas planned for disked firebreaks.
4. Strip disking shall be restricted to slopes of less than 8 percent and be placed on the contour at all times.
5. No more than one-third of a field may be disked in any given year. Disked areas may not be re-disked the following two years. Disked strips shall be a minimum width of 20 feet, not to exceed 50 feet. Disked strips shall be separated by undisturbed strips are least two times the width of the disked strip.

F. ENVIRONMENTAL CONCERNS

Consider other resources and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

G. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife and water quality benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

H. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

I. SPECIFICATIONS

1. Select areas near protective cover (within 150 feet). Protective cover includes woodlands, idle grassy areas, well established native warm season grass plantings, and shrub stands.

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2. Disked areas should be disked between the dates of Sept. 1 – April 15.
3. Disked areas should not be mowed in the years between re-disking, unless being harvested for hay. Native warm season grass stands may be harvested once per year beginning with the third growing season. Native warm season grass stands may only be harvested between July 1 and August 15.
4. Strips may be mowed prior to disking to facilitate the ease of disking.

Approved Cover Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Kobe/Korean Lespedeza	15.0 lbs.	Feb. 20 – June 15
Wildflowers	2.0 lbs.	Apr. 1 – June 1

**Choose at least two of the
following species:**

Blackeyed Susan
Illinois Bundleflower
Purple Coneflower
Cosmos
Corn Poppy
Upright Coneflower
Purple Prairie Coneflower
Plains Coreopsis
Lanceleaf Coreopsis
Shasta Daisy
California Poppy
Partridge Pea

TN517.D.33-1(36)

(440-V-CPM, Amend. TN11, Jan. 2004)

WHIP 10 - PRESCRIBED BURNING

FOTG Practice Code 338

A. PURPOSE

The purpose of this practice is to reduce grass density and encourage forbs and legumes to regenerate for wildlife food and cover.

B. PROGRAM POLICY

Apply this practice to native warm season grasslands and idle grassy areas where hard seeded native forbs may respond.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan.

Eligible Components:

Disking (for Firebreak Purposes Only)

Labor (for Conducting the Burn)

Eligible Seed (Establishment of Permanent Green Firebreak)

Seedbed Preparation (Establishment of Permanent Green Firebreak)

Seeding (Establishment of Permanent Green Firebreak)

The disking component of this practice shall have a cost-share dollar limit of \$16.50 per acre and meet the requirements of the WHIP 9 practice (strip disking). Cost share for strip disking shall remain 75 percent of average cost.

Cost share shall be applicable for conducting prescribed burns for all scheduled treatments in the WHIP Agreement under the limitation that a prescribed burn of the same acreage shall not be more frequent than once every three years during the length of the Agreement.

The applicant cost-share limit for conducting a prescribed burn shall not exceed \$7.50 per acre per burn. Cost share shall remain 75 percent of average cost limit per scheduled burn.

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Cost share is authorized only for the initial establishment of a permanent green firebreak. Cost share is **NOT AUTHORIZED** for the establishment of a green firebreak around fields smaller than two acres.

E. REQUIREMENTS

The following are requirements for this practice:

1. The burned area shall not be grazed by domestic livestock for the life of the Long-Term Agreement.
2. Prescribed burns shall be done outside the primary nesting season of April 15 to August 15. Prescribed burns shall be restricted to a period between December 1 and April 15.
3. No more than one-third of the contract acres established to warm season grasses or natural vegetation may be burned in any given year. Areas burned may not be burned again the following two years. Prescribed burns will be carried out according to the Tennessee Division of Forestry guidelines. Landowners shall be instructed to obtain a burning permit from the Tennessee Division of Forestry as required and must follow all other applicable EPA, state, or local restrictions. Landowners are responsible for obtaining a qualified burn team.

F. ENVIRONMENTAL CONCERNS

Consider other resources and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

G. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

H. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

I. SPECIFICATIONS

Planned Widths	Green firebreaks shall have a minimum width of 20 feet, not to exceed a maximum of 50 feet.
Approved Cover	Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.
Requirements	A current soil test is strongly recommended. In the absence of a soil test, apply fertilizer materials for cool season plantings at the rate of 0 pounds N, 60 pounds P, 60 pounds K per acre, and 2 tons of lime. Cost sharing shall be based on either a current soil test or the minimum recommendation listed above.
Management	Mowing to reduce old growth of green firebreaks is permissible. Haying of green firebreaks is allowed in the haying season prior to the scheduled burn.
Seedbed	For conventional plantings, a firm seedbed is recommended. It should be prepared by plowing and disking (or harrowing) and allowed to settle.

<u>Eligible Seed or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Ladino Clover	4.0 lbs.	Feb. 20 – Apr. 1
Red Clover	5.0 lbs.	Aug. 15 – Oct. 1
Winter Wheat (Temporary Cover)	25.0 lbs.	

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WHIP 11 - RIPARIAN FOREST BUFFER

FOTG Practice Code 391

A. PURPOSE

The purpose of this practice is to remove nutrients, sediment, and other pollutants from surface runoff by deposition, absorption, plant uptake, denitrification, and other processes, thereby improving water quality. The practice will also create shade to lower water temperature and provide a source of detritus and large woody debris for aquatic organisms. Terrestrial wildlife habitat associated with streamside zones will be improved.

B. PROGRAM POLICY

Apply this practice to cropland or grasslands immediately adjacent and parallel to:

1. Streams having perennial flow.
2. Seasonal streams, excluding gullies and sod waterways.
3. Sinkholes, karst areas, and other ground water recharge areas.
4. Wetlands permanently or semi-permanently inundated with surface water.
5. Ponds and lakes.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.
- Meet the following conditions:

For crop and grassland fields where a buffer area (woods or grassland) already exists between the water body and the field, the following applies:

- a. If the existing wooded buffer is 30 percent or more of the geomorphic floodplain, or a minimum of 150 feet, cost share is **NOT AUTHORIZED**.
- b. If the existing wooded buffer is less than 30 percent of the geomorphic floodplain, cost share **IS AUTHORIZED** to extend the existing wooded buffer up to 30 percent of the geomorphic floodplain, or a maximum of 150 feet, whichever is less.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP).

TN517.D.33-1(40)

(440-V-CPM, Amend. TN11, Jan. 2004)

Eligible Components:

Trees
 Shrubs
 Planting Costs
 Minerals
 Eligible Seed
 Seedbed preparation
 Seeding
 Tame Grass Eradication (Herbicide and Application Costs)
 Temporary Cover
 Fencing (Permanent Fencing Needed to Exclude Livestock)

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock is available; (b) needed because normal planting period for the species has passed; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover immediately; (d) needed on class I soils when natural regeneration of herbaceous vegetation is planned.

E. REQUIREMENTS

The following are requirements for this practice.

1. Riparian forest buffers shall be a minimum of 30 percent of the geomorphic floodplain. The riparian width shall not be less than 35 feet or wider than a maximum of 150 feet.

The geomorphic floodplain is determined by one of two methods:

- a. The width of the floodplain as identified from the soil survey as bottomland and first stream terrace soils.
- b. The width of the floodplain as identified from a USGS quadrangle map where ridge contours (steepness) begins.

Example:

Geomorphic Floodplain = 120 feet (One Side of Stream)
 $.3 \times 120 = 36$ feet

Geomorphic Floodplain = 500 feet (One Side of Stream)
 $.3 \times 500 = 150$ feet

2. The riparian forest buffer may consist of all three zones. Zones 1 and 2 shall be required and meet the minimum width of 35 feet. Zone 3 shall be optional and cannot be less than 15 feet or wider than 30 feet. Zone 3 must be established to native warm season grass/forb mixtures.

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3. The planted area shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
4. Limit cost share to the minimum minerals and seed necessary to establish adequate cover to provide wildlife habitat needs.
5. Practice shall reduce nutrients, sediment, organic matter, pesticides, and other pollutants that are being delivered to receiving waters.
6. Chemicals used in performing the practice must be:
 - a. Federally, state, and locally registered.
 - b. Applied according to authorized registered uses, directions on the label, and other federal or state policies and requirements.

F. ENVIRONMENTAL CONCERNS

Consider other resources and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

G. PRACTICE MAINTENANCE

This practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife and water quality benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

H. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

I. SPECIFICATIONS

Approved Cover	Natural regeneration of herbaceous vegetation is an acceptable cover on capability classes I and II soils. With natural regeneration, cost sharing shall only be available for tame grass eradication and a temporary cover, if needed. Areas other than natural regeneration planted to trees and shrubs shall also be eligible for cost share. Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.
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Requirements	Temporary cover, when required, is authorized in accordance with subparagraph D. A current soil test is strongly recommended. In the absence of a soil test, apply fertilizer materials for temporary cover and native warm season grasses at the rate of 30 lbs. N, 60 lbs. P, 60 pounds K per acre, and 2 tons of lime. Cost sharing shall be based on either a current soil test or the minimum recommendation listed above.
Seedbed	For conventional plantings, a firm seedbed is recommended. It should be prepared by plowing and disking (or harrowing) and allowed to settle.
Herbicides	Apply herbicides in accordance with the label for tame grass eradication or when the no-till method of planting is used.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
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Natural Regeneration	Sow temporary cover, if needed.	
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Tall Grass Mixture (Deer/Turkey)

Big Bluestem	1.0 lb. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	1.0 lb. (PLS <u>1</u> /)	
Little Bluestem	1.0 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Switchgrass	0.5 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		

Short Grass Mixture (Quail/Rabbit)

Little Bluestem	3.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Indiangrass	0.5 lb. (PLS <u>1</u> /)	
Sideoats Grama	1.0 lb. (PLS <u>1</u> /)	
Kobe/Korean Lespedeza	5.0 lbs.	
or		
Single or Mix of	1.0 lb.	
Illinois Bundleflower		
Partridge Pea		

Broadcast Planting Mixture

Switchgrass	8.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
(Cave-in-Rock, Blackwell)		
Kobe/Korean Lespedeza	5.0 lbs.	
<u>1</u> / PLS = Pure Live Seed		

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
<u>Trees</u>		
Yellow Poplar	12x12 (302/ac.)	Nov. 1 – Apr. 1
White Ash	12x12 (302/ac.)	Nov. 1 – Apr. 1
Green Ash	12x12 (302/ac.)	Nov. 1 – Apr. 1
Hickory	12x12 (302/ac.)	Nov. 1 – Apr. 1
Pecan	12x12 (302/ac.)	Nov. 1 – Apr. 1
Black Walnut	12x12 (302/ac.)	Nov. 1 – Apr. 1
Blackgum	12x12 (302/ac.)	Nov. 1 – Apr. 1
Persimmon	12x12 (302/ac.)	Nov. 1 – Apr. 1
Cherrybark Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Willow Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Sawtooth Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Nutall Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Shumard Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Black Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Pin Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Water Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Swamp Chestnut Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
Swamp White Oak	12x12 (302/ac.)	Nov. 1 – Apr. 1
<u>Shrubs</u>		
Crabapple	12x12 (302/ac.)	Nov. 1 – Apr. 1
Flowering Dogwood	12x12 (302/ac.)	Nov. 1 – Apr. 1
Washington Hawthorne	8x8 (680/ac.)	Nov. 1 – Apr. 1
Silky Dogwood	8x8 (680/ac.)	Nov. 1 – Apr. 1
Indigo Bush	8x8 (680/ac.)	Nov. 1 – Apr. 1
Spicebush	8x8 (680/ac.)	Nov. 1 – Apr. 1
Wild Plum	8x8 (680/ac.)	Nov. 1 – Apr. 1
Chickasaw Plum	8x8 (680/ac.)	Nov. 1 – Apr. 1
*Shrub Lespedeza	3x3 (4,900/ac.)	Nov. 1 – Apr. 1
(*VA-70, Amquail, Thunbergii)		
Temporary Cover – Summer		
Millet, White Proso	20.0 lbs.	May 1 – July 1
Millet, Foxtail	20.0 lbs.	May 1 – July 1
Buckwheat	30.0 lbs.	May 1 – Aug. 1
Temporary Cover – Winter		
Crimson Clover	20.0 lbs.	Aug. 1 – Oct. 1
Winter Wheat	1.5 – 2 bu.	Sept. 1 – Oct. 20
Cereal Rye	1.5 – 2 bu.	Sept. 1 – Oct. 20

TN517.D.33-1(44)

(440-V-CPM, Amend. TN11, Jan. 2004)

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Wheat and Crimson Clover	1 bu.; 10 lbs.	Sept. 1 – Oct. 20
Rye and Crimson Clover	1 bu.; 10 lbs.	Sept. 1 – Oct. 20

1/ PLS = Pure Live Seed

Mature tree/shrub height for recommended species is presented below:

<u>Trees</u>	<u>Mature Height (feet)</u>	<u>Shrubs</u>	<u>Mature Height (feet)</u>
Yellow Poplar	100	Crabapple	15
White Ash	70	Flowering Dogwood	25 - 45
Green Ash	50 – 75	Silky Dogwood	15
Hickory	80	Shrub Lespedeza	9
Pecan	100	Washington Hawthorne	20
Black Walnut	70 – 90	Indigo Bush	12
Blackgum	50 – 100	Spicebush	9
Persimmon	30	Wild/Chickasaw Plum	10
Cherrybark Oak	50 – 80		
Willow Oak	60		
Sawtooth Oak	35 – 75		
Nuttall Oak	60 – 100		

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**WHIP 12 - STREAMBANK AND SHORELINE
PROTECTION**

FOTG Practice Code 580

A. PURPOSE

The purpose of this practice is to stabilize eroding streambanks while armoring with vegetative components that will provide fish habitat. The practice will remove sediment and create shading, thereby improving water quality. The practice will also provide a source of detritus and large, woody debris for aquatic organisms. Terrestrial wildlife habitat associated with streamside zones will be improved.

B. PROGRAM POLICY

Eligible project sites shall meet the following conditions:

1. On streams having perennial flow.
2. On seasonal streams, excluding gullies and sod waterways.
3. Contain streambanks exposed due to lack of adequate cover.
4. Have a drainage area immediately upstream of less than 50,000 acres.
5. Have a bank less than 12 feet in vertical height as measured from edge of water at base flow.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

- Improve wildlife habitat benefits to an acceptable level.
- Prevent degradation of environmental benefits from recurring.
- Be maintained for the expected lifespan of the practice.
- Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP). This practice shall have a cost-share limit of \$3,000 provided to an applicant per contract.

Eligible Components

Trees
Shrubs
Native Grasses
Labor for Live Staking Labor for Live Posting
Labor for Cedar Tree Revetment Installation
Root Wad Installation
Coconut Fiber Roll

TN517.D.33-1(46)

(440-V-CPM, Amend. TN11, Jan. 2004)

Planting Costs

Eligible Seed

Seeding

Fencing (Permanent Fencing Needed to Exclude Livestock)

Temporary Cover (as specified in the following paragraph):

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock is available; (b) needed because normal planting period for the species has passed; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover immediately.

Cost share shall only be available for vegetative components and the associated labor requirements of this practice. Structural components such as bank shaping, deflectors, riprap, etc., are **NOT** eligible for cost share.

E. REQUIREMENTS

The following are requirements for this practice.

1. The planted area shall not be grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
2. Limit cost share to the minimum plant materials adequate to provide wildlife habitat needs.
3. Practice shall provide adequate streambank stabilization and reduce sediment being delivered to receiving waters.
4. A minimum of two rows of trees shall be established beginning at the top of all stabilized streambanks.

F. PLANTING TIMESPAN

Planting after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed as scheduled in the Wildlife Habitat Development Plan, unless the producer can provide acceptable documentation that seed stock is not available.

G. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

All necessary permits shall be obtained by the participant. Permits needed may include those issued by the U.S. Army Corps of Engineers, Tennessee Department of Environment and Conservation, and/or the Tennessee Valley Authority (TVA).

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H. PRACTICE MAINTENANCE

The practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife and water quality benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

I. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

J. SPECIFICATIONS

Approved Cover Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist.

Requirements Temporary cover, when required, is authorized in accordance with subparagraph D. Native warm season grass mixtures do not require fertilizer or lime for this practice. Cost sharing shall be based on either a current soil test or the minimum recommendation listed above.

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Switchgrass	6.0 lbs. (PLS <u>1</u> /)	Dec. 1 - Jul. 1
Virginia Wildrye	20.0 lbs. (PLS <u>1</u> /)	Aug. 15 - Oct. 15 Feb. 20 - Apr. 1
Temporary Cover - Summer		
Millet, Browntop	25-40 lbs.	May 1 - Jul. 1
Sudangrass	30 lbs.	Apr. 1 - Jul. 1
Temporary Cover - Winter		
Winter Wheat	1.5 - 2 bu.	Sept. 1 - Oct. 20
Cereal Rye	1.5 - 2 bu.	Sept. 1 - Oct. 20
<u>Trees</u>		
Yellow Poplar	12x12 (302/ac)	Nov. 1 - Apr. 1
White Ash	12x12 (302/ac)	Nov. 1 - Apr. 1
Green Ash	12x12 (302/ac)	Nov. 1 - Apr. 1
Hickory	12x12 (302/ac)	Nov. 1 - Apr. 1

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(440-V-CPM, Amend. TN11, Jan. 2004)

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Pecan	12x12 (302/ac)	Nov. 1 - Apr. 1
Black Walnut	12x12 (302/ac)	Nov. 1 - Apr. 1
Blackgum	12x12 (302/ac)	Nov. 1 - Apr. 1
Persimmon	12x12 (302/ac)	Nov. 1 - Apr. 1
Cherrybark Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Willow Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Sawtooth Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Nutall Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Shumard Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Black Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Pin Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Water Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Swamp Chestnut Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
Swamp White Oak	12x12 (302/ac)	Nov. 1 - Apr. 1
<u>Shrubs</u>		
Bankers Willow	3x3 (4,840/ac)	Nov. 1 - Apr. 1
Streamco Willow	3x3 (4,840/ac)	Nov. 1 - Apr. 1
Buttonbush	3x3 (4,840/ac)	Nov. 1 - Apr. 1
Silky Dogwood	8x8 (680/ac)	Nov. 1 - Apr. 1
Gray Dogwood	8x8 (680/ac)	Nov. 1 - Apr. 1

Eligible plant materials from cuttings (local sources collected on site):

<u>Cuttings</u>		
Black Willow	3x3 (4,840/ac)	Dec. 1 - Mar. 1
Coastal Plain Willow	3x3 (4,840/ac)	Dec. 1 – Mar. 1
Buttonbush	3x3 (4,840/ac)	Dec. 1 - Mar. 1
Silky Dogwood	3x3 (4,840/ac)	Dec. 1 - Mar. 1
Gray Dogwood	3x3 (4,840/ac)	Dec. 1 - Mar. 1
Eastern Cottonwood	3x3 (4,840/ac)	Dec. 1 - Mar. 1
American Elder	3x3 (4,840/ac)	Dec. 1 - Mar. 1

1/ PLS = Pure Live Seed

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**WHIP 13 - WETLAND RESTORATION/CREATION/
ENHANCEMENT**

FOTG Practice Code 657

A. PURPOSE

The purpose of this practice is to provide habitat for waterfowl, wading birds, other aquatic-based wildlife, and neotropical songbirds, while providing water quality benefits to associated wetlands or water bodies.

B. PROGRAM POLICY

Apply this practice to establish permanent wildlife habitat on cropland or pasture/hay land consisting of primarily introduced grasses. This practice will consist of primarily hydrology restoration or enhancement. Tree planting shall be restricted to wetness limited, nonhydric soils in capability classes IIw or IIIw.

C. ELIGIBILITY

To be eligible for cost share, this practice shall:

1. Restore or enhance hydrology on prior converted croplands.
2. Create wetland conditions on capability classes IIw or IIIw soils that are nonhydric.
3. Improve wildlife habitat benefits to an acceptable level.
4. Prevent degradation of environmental benefits.
5. Be maintained for the expected lifespan of the practice.
6. Be included in the approved Wildlife Habitat Development Plan.

D. COST-SHARE POLICY

Eligible practice components for this practice shall be determined needed by NRCS and specified in an approved Wildlife Habitat Development Plan (WHDP).

Eligible Components

Earthmoving for Dike Construction or Tile Breaks
Water Control Structure (Pipe)
Minerals
Eligible Seed
Seedbed Preparation
Seeding
Trees (Including Planting Costs)

TN517.D.33-1(50)

(440-V-CPM, Amend. TN11, Jan. 2004)

Shrubs (Including Planting Costs)

Fencing (Permanent Fencing for Livestock Exclusion ONLY)

Temporary Cover (As Specified in the Following Paragraph)

Temporary cover will be eligible under one of the following conditions: (a) determined needed until required seeds or plant stock are available; (b) needed because normal planting period for the species has passed and erosion problems may occur; (c) needed because of a soil condition such as chemical residue that will not allow establishment of cover immediately.

Seeding costs for herbaceous plant materials is only allowed to establish cover on constructed dikes.

E. REQUIREMENTS

The following are requirements for this practice:

1. The planted area shall not be harvested or grazed by domestic livestock for the life of the Long-Term Agreement (AD-1154).
2. Limit cost share to the minimum minerals, plants, and seed necessary to establish adequate cover to provide wildlife habitat needs.
3. Eligibility shall require that a certified wetland determination be completed prior to approval of the WHIP Long-Term Agreement.
4. Prior converted cropland areas may only be managed as moist soil management units. No cropping is allowed. No more than 25 percent of the impoundment area may be planted to an annual grain (e.g., corn, soybeans) for flooding each year.
5. All water control structures shall be closed by October 1 each year, and the project site shall not be drained until after March 1.
6. Trees shall be planted with a mixture of at least three species. Tree species shall be adapted to the site, and when identified as an oak site, shall consist of at least two species of oaks.
7. Impoundment areas may be disked to control woody invasion. Impoundment areas may not be disked more than one year out of four.
8. The following limitations apply to all dike construction planned under WHIP 13 - Wetland Restoration/Creation/Enhancement:
 - a. Earthmoving cost is limited to \$2,000.00 per contract.

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- b. The maximum pool depth of the impoundment area is three feet above natural ground, with the exception of borrow ditches. Borrow ditches may not constitute more than 5 percent of the impoundment.

F. PLANTING TIMESPAN

Planting or sowing after the WHIP Long-Term Agreement is approved by the Conservation District shall be completed as scheduled in the Wildlife Habitat Development Plan, unless the producer can provide acceptable documentation that seed stock is not available.

G. ENVIRONMENTAL CONCERNS

Consider other resource and environmental concerns (e.g., cultural, wetlands, etc.) as prescribed by the National Environmental Policy Act (NEPA) when establishing this practice.

All required federal and state permits shall be obtained by the landowner, if adjacent wetlands or streams will be impacted by the proposed project.

H. PRACTICE MAINTENANCE

The practice shall be maintained without additional federal cost share for the expected lifespan of the practice. Cost share shall be refunded if either of the following applies:

1. Participant destroys the cover during its lifespan; or
2. Cover fails to provide the desired wildlife benefits during the life of the WHIP Agreement, unless the failure is caused by circumstances beyond the participant's control.

I. TECHNICAL RESPONSIBILITY

NRCS shall have technical responsibility for this practice.

J. SPECIFICATIONS

Approved Cover	Approved plant materials are listed below. Substitutions may be allowed subject to prior approval by the WHIP program leader or state biologist. Permanent perennial vegetation shall be established on all newly constructed dikes.
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Requirements	Temporary cover is only allowed for constructed dikes. Temporary cover, when required, is authorized in accordance with subparagraph D. A current soil test is recommended. In the absence of a soil test, apply fertilizer materials <u>for temporary cover</u> at the rate of 30 pounds N, 60 pounds P, 60 pounds K per acre, and 1 ton of lime. Native warm season grass mixtures <u>do not require fertilizer</u> . Native grass/forb mixtures do not require lime, if the soil pH is 5.5 or above. Apply 1
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ton of lime per acre on warm season grass mixtures in the absence of a soils test. Tree and shrub seedlings (seedlings) do not require lime or fertilizer. Cost sharing shall be based on either a current soil test or the minimum recommendation listed above.

Permanent perennial vegetation for dikes:

<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Virginia Wildrye	20 lbs. (PLS <u>1</u> /)	Aug. 15 – Oct. 15
Ladino Clover	2.0 lbs.	Feb. 20 – Apr. 1
Kobe/Korean Lespedeza	5.0 lbs.	Feb. 20 – Apr. 1
Switchgrass	12.0 lbs. (PLS <u>1</u> /)	Dec. 1 – July 1
Virginia Wildrye	20 lbs. (PLS <u>1</u> /)	Aug. 15 – Oct. 15

Tree/Shrub Establishment:

<u>Species</u>	<u>Spacing</u>	<u>Planting Date</u>
Bald Cypress	12x12 (302/ac.)	Nov. 1 - Apr. 1
Green Ash	12x12 (302/ac.)	Nov. 1 - Apr. 1
Yellow Poplar	12x12 (302/ac.)	Nov. 1 - Apr. 1
Native Sweet Pecan	12x12 (302/ac.)	Nov. 1 - Apr. 1
Water Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Willow Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Cherrybark Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Pin Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Swamp Chestnut Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Swamp White Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Sweetgum	12x12 (302/ac.)	Nov. 1 - Apr. 1
Nuttall Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Shumard Oak	12x12 (302/ac.)	Nov. 1 - Apr. 1
Cranberry Seedlings	Call NRCS biologists for recommendations.	

Temporary Cover - Summer

Millet, Japanese	20 lbs.	May 1 - July 1
Millet, Browntop	25-40 lbs.	May 1 - Jul. 1
Millet, Foxtail	20 lbs.	May 1 - Jul. 1
Sudangrass	30 lbs.	Apr. 1 - Jul. 1

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<u>Eligible Seeds or Plants</u>	<u>Seeding Rates (per acre)</u>	<u>Seeding Dates</u>
Temporary Cover - Winter		
Crimson Clover	20 lbs.	Aug. 1 - Oct. 1
Winter Wheat	1.5 - 2 bushels	Sept. 1 - Oct. 20
Cereal Rye	1.5 - 2 bushels	Sept. 1 - Oct. 20
Wheat and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 - Oct. 20
Rye and Crimson Clover	1 bushel; 10 lbs.	Sept. 1 - Oct. 20

1/ PLS = Pure Live Seed